

**PERCENTAGE LOG OF WATER-WELL CUTTINGS**  
**UTAH GEOLOGICAL SURVEY**

DWRi Appropriation #: 07-55-015-M00  
 Location: (D-2-4)32cbb, Wasatch County, Utah  
 Driller: Boart Longyear Drilling Services

Well Owner: United Park City Mines  
 Win #: 430643  
 Geologist: Janae Wallace, 3/12/08

Depth Range (feet)		PERCENTAGES						COMMENTS
		unc*	dis*	consolidated				
		grv*	sg*	ss*	CO <sub>3</sub> *	ig*	qz*	
0	10	100	0	0	0	0	0	gray and brown coarse sand and gravel; gravel is angular to subangular and consists dominantly of igneous clasts with minor quartzite and slate/schist; maximum clast size (MCS) is 0.3 cm, average clast size (ACS) is 0.3 cm; non calcareous
10	20	100	0	0	0	0	0	gray, white, tan, green, and orange gravel; gravel is angular to subangular and consists dominantly of igneous clasts with minor quartzite and slate/schist; MCS is 2 cm, ACS is 1 cm
20	30	100	0	0	0	0	0	“ MCS is 1 cm, ACS is 0.5 cm
30	40	100	0	0	0	0	0	“ MCS is 1.5 cm, ACS is 0.5 cm
40	50	100	0	0	0	0	0	“ MCS is 1 cm, ACS is 0.3 cm
50	60	100	0	0	0	0	0	“ MCS is 2 cm, ACS is 1 cm; slightly calcareous
60	70	100	0	0	0	0	0	“ MCS is 1 cm, ACS is 0.5 cm
70	80	0	0	0	0	0	0	no sample

\*unc=unconsolidated; dis=disaggregated; grv=gravel; sg=sand and/or clay gouge (fault zone?); ss=sandstone; CO<sub>3</sub>=limestone/marble/dolostone; ig=igneous; qz=quartzite

Depth Range (feet)		PERCENTAGES						COMMENTS
		unc*	dis*	consolidated				
				grv*	sg*	ss*	CO <sub>3</sub> *	
80	90	100	0	0	0	0	0	gray, tan, and green gravel; gravel is angular to subangular and consists dominantly of igneous clasts with minor quartzite and slate/schist; MCS is 1 cm, ACS is 0.5 cm
90	100	100	0	0	0	0	0	“ MCS is 1.5 cm, ACS is 0.5 cm
100	110	0	0	0	0	100	0	dark gray-green and minor white igneous rock (granodiorite?); non calcareous; Clayton Stock?
110	120	0	0	0	0	100	0	“
120	130	0	0	0	0	50	50	green-gray, green-yellow, and white igneous rock (granodiorite?) and quartzite (contact metamorphosed Thaynes Formation?); non calcareous
130	140	0	0	0	0	50	50	“
140	150	0	0	0	0	0	0	no sample
150	160	0	90	0	0	10	0	white, green-yellow, and gray micaceous clay and sand-sized quartz and feldspar; tremolite?; calcareous
160	170	0	50	0	0	50	0	white, green-yellow, and gray micaceous clay and sand-sized quartz, mafic minerals, and feldspar; tremolite?; dark gray and green granodiorite; slightly calcareous
170	180	0	50	0	0	50	0	“
180	190	0	0	0	0	10	90	white with minor gray and green quartzite and granodiorite
190	200	0	0	0	0	0	0	no sample

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Depth Range (feet)		PERCENTAGES						COMMENTS
		unc*	dis*	consolidated				
				grv*	sg*	ss*	CO <sub>3</sub> *	
200	210	0	0	0	0	20	80	white with minor gray and green quartzite and igneous rock (granodiorite?); slightly calcareous
210	220	0	0	0	0	100	0	gray and minor white igneous rock (granodiorite?); slightly calcareous
220	230	0	0	0	25	50	25	white, green, and gray limestone (marble?), quartzite, and granodiorite; slightly calcareous
230	240	0	0	0	90	10	0	gray-white and green-white limestone/marble? and igneous rock (granodiorite?); calcareous
240	250	0	90	0	0	10	0	white clay and sand-sized minerals with minor green and gray igneous rock (granodiorite?); calcareous
250	260	0	0	0	0	25	75	gray-pink and green-gray quartzite and igneous rock (granodiorite?); slightly calcareous
260	270	0	0	0	0	0	100	gray-white quartzite; trace pyrite; slightly calcareous
270	280	0	0	0	0	0	100	“ green white
280	290	0	0	0	0	0	100	“green white, gray, and pink tan
290	300	0	0	0	0	0	100	“ pink tan and gray
300	310	0	50	0	0	0	50	white-gray and green clay and sand-size minerals (tremolite, garnet, pyroxene?) with quartzite
310	320	0	50	0	0	0	50	“
320	330	0	0	80	0	0	20	white and white-green calcareous sandstone and quartzite

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Depth Range (feet)		PERCENTAGES						COMMENTS
		unc*	dis*	consolidated				
				grv*	sg*	ss*	CO <sub>3</sub> *	
330	340	0	0	45	45	tr	10	white-green, white-gray, and minor pink-tan calcareous sandstone, limestone, and quartzite; trace igneous rock; calcareous
340	350	0	0	45	45	tr	10	“
350	360	0	0	50	0	tr	50	green-yellow and green-gray-white calcareous sandstone and quartzite; trace igneous rock; calcareous
360	370	0	0	50	0	tr	50	“ green and gray; slightly calcareous
370	380	0	tr	100	0	tr	tr	white and minor green-white calcareous sandstone containing green minerals (amphibole, pyroxene?); trace clay, igneous rock, and quartzite
380	390	0	25	25	0	0	50	white and white-green quartzite and calcareous sandstone with clay and sand-sized minerals (garnet, pyroxene, tremolite?); calcareous
390	400	0	25	25	0	0	50	“
400	410	0	0	10	0	0	90	gray, pink-tan, and green-gray quartzite and calcareous sandstone; non calcareous
410	420	0	0	0	0	0	100	green-gray and purple-gray quartzite; trace pyrite; non calcareous
420	430	0	0	0	0	0	100	“
430	440	0	0	0	0	0	100	green quartzite; pyrite; non calcareous

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Depth Range (feet)		PERCENTAGES						COMMENTS
		unc*	dis*	consolidated				
				grv*	sg*	ss*	CO <sub>3</sub> *	
440	450	0	0	80	0	0	20	light and dark green calcareous sandstone and white quartzite containing green and white minerals (pyroxene, tremolite, garnet?); calcareous
450	460	0	0	50	0	0	50	“
460	470	0	0	50	0	0	50	“
470	480	0	0	30	0	0	70	“ slightly calcareous
480	490	0	100	0	0	tr	0	white and green talc-like clay and gypsum and sand-sized minerals?; trace igneous rock
490	500	0	0	10	0	0	90	light and dark green calcareous sandstone and white quartzite containing green and white minerals (pyroxene, amphibole, garnet?); calcareous
500	510	0	0	0	0	100	0	green-tan and pink-tan igneous rock with quartz, K-feldspar, pyroxene, and amphibole (felsic>mafic) quartz monzonite?; slightly calcareous
510	520	0	0	0	0	100	0	“ with quartz, feldspars, pyroxene, amphibole, and chlorite?
520	530	0	0	0	0	100	0	dark and light green with minor white igneous rock (mafic>felsic) granodiorite?
530	540	0	0	0	0	100	0	gray and white igneous rock (mafic=felsic) granodiorite?

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Depth Range (feet)		PERCENTAGES						COMMENTS
		unc*	dis*	consolidated				
				grv*	sg*	ss*	CO <sub>3</sub> *	
540	550	0	0	0	0	100	0	green-tan and gray-white igneous rock (K-feldspar, quartz, pyroxene, hornblende, chlorite) quartz monzonite?; non calcareous
550	560	0	0	0	0	100	0	dark green and gray igneous rock (mafic>felsic) granodiorite?; non calcareous
560	570	0	0	0	0	100	0	dark and light green and gray with minor pink igneous rock (both granodiorite and quartz monzonite?); non calcareous
570	580	0	0	0	0	100	0	dark green and gray igneous rock (mafic>felsic) granodiorite?; non calcareous
580	590	0	0	0	0	100	0	“
590	600	0	0	0	0	100	0	“
600	610	0	0	0	0	100	0	“
610	620	0	0	50	0	50	0	white calcareous sandstone and green igneous rock (granodiorite?)
620	630	0	0	100	0	tr	0	green and minor white calcareous sandstone with green crystals (hornblende, pyroxene?)
630	640	0	0	100	0	tr	0	white-gray calcareous sandstone; trace igneous rock; slightly calcareous
640	650	0	0	tr	0	100	0	gray and white with minor pink and green igneous rock (hornblende, K-feldspar, pyroxene?) quartz monzonite?; slightly calcareous

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650	660	0	0	0	100	0	0	white and blue-gray marble/dolostone?; rhombic crystals; slightly calcareous
660	670	0	0	0	100	0	0	“
670	680	0	0	0	0	0	100	tan-gray quartzite; trace pyrite; non calcareous
680	690	0	0	0	0	0	100	green quartzite; slightly calcareous
690	700	0	0	0	0	0	100	gray and green quartzite; non calcareous
700	710	0	0	tr	0	100	0	black and minor green igneous rock (hornblende, biotite, feldspar, and pyroxene) (mafic >felsic) granodiorite?; trace calcareous sandstone; non calcareous
710	720	0	0	0	0	100	0	green-gray and white-pink igneous rock (felsic>mafic) quartz monzonite?; non calcareous
720	730	0	0	0	0	100	0	“ green; some iron oxide
730	740	0	0	100	0	0	0	white-gray calcareous sandstone
740	750	0	0	90	0	0	10	yellow-tan and gray calcareous sandstone and quartzite
750	760	0	0	90	0	10	0	gray calcareous sandstone and green-white igneous rock (granodiorite?)
760	770	0	0	45	0	10	45	green quartzite and gray-tan calcareous sandstone with minor igneous rock (chlorite, feldspar); slightly calcareous

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Depth Range (feet)		PERCENTAGES						COMMENTS
		unc*	dis*	consolidated				
				grv*	sg*	ss*	CO <sub>3</sub> *	
770	780	0	0	0	0	100	0	black and minor green igneous rock (hornblende, biotite, feldspar, and pyroxene) (mafic >felsic) granodiorite?; non calcareous
780	790	0	50	50	0	tr	0	white talc-like powder and sand-size quartz and gray calcareous sandstone; trace igneous rock
790	800	0	0	0	0	50	50	gray, green, and minor white quartzite and igneous rock (granodiorite?); non calcareous
800	810	0	0	100	0	0	0	white calcareous sandstone; slightly calcareous

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